REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 12-28 are presently active in this case. The present Amendment amends Claim 12.

The outstanding Office Action objected to Claim 12 because of informalities. Claims 12-28 were rejected under 35 U.S.C. § 103(a) as unpatentable over Larsson et al. (U.S. Patent Publication No. 2004/0133289) in view of Nerwin v. Erlichman, 168 USPQ 177, 179.

In response to the objection to Claim 12, Claim 12 is amended to correct the noted informalities.

In response to the rejection under 35 U.S.C. § 103(a), Applicant respectfully requests reconsideration of the rejection.

Briefly recapitulating, the claimed method for diagnosing functional faults of a functional architecture requires several steps. A *first* list is created. This first list includes particular values corresponding to *functional faults of the sensors and actuators*. A *second* list is also created. This second list includes particular values that *permit propagation of information* relating to the functional faults of the sensors and actuators across the functional architecture. A functional diagnosis of the service is then formulated *based on the first and second lists* of particular values. The particular values and their propagation are recorded on a memory device.

As explained in Applicant's specification,[1] the claimed method reflects Applicant's discovery that a functional architecture can be defined with particular values classified into two categories: one the one hand, functional values, such as the claimed values of the first list corresponding to functional faults of the sensors and actuators, and on the other hand,

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[1] E.g., see from page 3, lines 13 to page 4, line 26.

operational values, such as the claimed values of the second list that permit propagation of information relating to the functional faults of the sensors and actuators across the architecture. The first values are independent of the embodiment of the architecture, while the second values are specific to the embodiment. See the specification at page 3, lines 25-31. Further, the first and second values are related to each other. For example, in Claim 12, the first values relate to faults of the sensors and actuators, while the second values relate to propagation of information relating to these same faults. Thus, the claimed method, *by relying on both the first values (functional) and the second values (operational), the claimed method can formulate a diagnosis* for different specific embodiments of the architecture, and is not limited to one specific embodiment. See the specification at page 4, lines 1-4.

Turning now to the applied prior art, the Larson et al. publication discloses a method for diagnosing a flow system. The Larson et al. publication, however, fails to disclose Applicant's claimed method. In particular, the Larson et al. publication fails to disclose the claimed step of formulating a functional diagnosis of a service *based on the first and second lists* of particular values, as defined in Claim 12.

In rejecting Claim 12, the outstanding Office Action points to paragraphs [0009], [0017], [0175], and [0184] for meeting the claimed steps of creating the first and second lists of values and of formulating a diagnosis based on these values. Applicant respectfully disagrees. These paragraphs do not disclose the claimed steps. For instance, paragraph [0184], which was identified in the Office Action as disclosing the claimed step of formulating a functional diagnosis, states:

> The process measurement analyzer 23e is a service function 23 ***arranged to analyze the status signals*** of a specific process and produce a report of the quality of the alarms, alarm signals, and measurements of the process. It monitors among other thing responses to an alarm situation, frequency of specific alarms, and the behavior of the process measurements. For example, if an alarm signal is generated often but is always ignored by the operators of the plant this can be an indication of that the limits for that alarm are either badly tuned or that that alarm is unnecessary. Another example can

> be a measurement, which usually is constant and has a sharp peak, and a few moments after the occurrence of that peak there is a burst of alarms. In this example the process measurement analyzer 23e can come to the conclusion that the alarm limits for that particular alarm are set to wide. All the information collected by the process measurement analyzer 23e is compiled into a report and stored in the apparatus database 22. Thus the information can be used by the maintenance personal at the plant to reduce the number of false alarms and alarm signals. (Emphasis added).

This paragraph does not disclose the claimed step of formulating a functional diagnosis because the analyzer 23e merely relies on the status signals, which carry "information about the flow system." See paragraph [0009]. Thus, the analyzer 23e does not rely on two different types of values, a first type corresponding to *functional faults of the sensors and actuators*, and a second type that *permit propagation of information* relating to the functional faults of the sensors and actuators across the functional architecture. The Larson et al. publication does not disclose that its "status signals" contain both types of values. The vague disclosure that the status signals carry "information about the flow system" does not meet the specific limitations that the claimed values *must include both* values corresponding to functional faults of the sensors and actuators, and values that permit propagation of information relating to the functional faults of the sensors and actuators across the functional architecture, as required by Claim 12. Note that Applicant is not merely arguing that Larson et al. fails to disclose the claimed two *lists*, as already acknowledged by the Office Action. Instead, Applicant points out that the list disclosed in the Larson et al. publication does not include the claimed *values*.
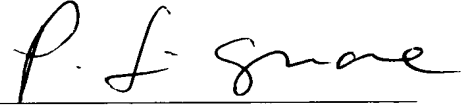
Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 12-28 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this

application in even better form for allowance, the Examiner is encouraged to contact

Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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